

IN THE SPECIFICATION

1. On page 3 lines 17-27, replace the entire paragraph with the following paragraph as amended:

One system for correcting for the Doppler shift is described in commonly assigned ~~pending~~ U.S. Patent Application, ~~having~~ Serial No. 09/145,055, filed September 1, 1998, and entitled "DOPPLER CORRECTED SPREAD SPECTRUM MATCHED FILTER," now U.S. Patent No. 6,044,105, the disclosure of which is hereby incorporated by reference in its entirety. In the foregoing system, a Doppler generator produces a complex phase shift value (having real and imaginary components) that it combined with an incoming complex data sample prior to correlation with a PN code in a matched filter correlator, so that Doppler error is minimized. Although meritorious to an extent, this system still suffers from some Doppler error. Thus, there is still a need for ways to further improve correlation analysis by better compensating for Doppler shift.

2. On page 16 lines 18-22, replace the entire paragraph with the following paragraph as amended:

In step 105, the next incremental portion of phase shifted product values for the selected hypothesis are coherently integrated. In step 106, a determination is made whether a frame boundary has been detected. If so, step 107 is performed, then followed by step 108~~109~~. If not, step 107 is bypassed, and step 108 is performed directly.

3. On page 21 lines 11-19, replace the entire paragraph with the following paragraph as amended:

Complex mixer 403 receives a subsegment of samples from RAM 400 over signal connection 404, and a Doppler shift hypothesis from incremental Doppler generator 401, and, responsive thereto, multiplies the samples by a

complex phasor of the form $e^{j\omega^d t}$, where ω^d represents the Doppler shift hypothesis provided by incremental Doppler generator 401. A Doppler-corrected subsegment of samples ~~results which~~ are stored in sample register 406. Additional detail about this procedure is available in U.S. Patent Application, Serial No. 09/145,055, filed September 1, 1998, and entitled "DOPPLER CORRECTED SPREAD SPECTRUM MATCHED ~~FILTER.~~" FILTER," now U.S. Patent No. 6,044,105, which has been incorporated by reference herein.

4. On page 34 lines 26-31, replace the entire paragraph with the following paragraph as amended:

In step 1004, the subsegment selected in step 1002 is corrected for the Doppler shift hypothesis selected in step 1003. In the matched filter 402 (FIG. 10), this step is performed by complex mixer 403, which multiplies the subsegment of samples by a complex phasor. In one implementation example, this step is performed as described in U.S.S.N. 09/145,055, now U.S. Patent No. 6,044,105, previously incorporated herein by reference.

5. On page 48 lines 7-15, replace the entire paragraph with the following paragraph as amended:

In an alternative embodiment, the register value residing within the register 1042 is not utilized to address the look-up table 1038 directly. Instead, the rollover may cause a state machine (not shown; e.g., a counter) to increment, and increment ~~and~~ the counter value associated with the state machine may address the look-up table 1038 or otherwise provide the complex value 1032. An example of this method is described and illustrated in U.S. Patent No. 6,044,105 (e.g., see FIGs. 4a and 4b therein) ~~patent application having serial no. 09/145,055, filed September 1, 1998, and entitled,~~ "DOPPLER CORRECTED SPREAD SPECTRUM MATCHED FILTER" ~~(see FIGs. 4a and 4b therein), which is hereby incorporated here-by reference in its entirety.~~